



1

SEQUENCE LISTING

<110> GOLETZ, STEFFEN
DANIELCZYK, ANTJE
KARSTEN, UWE
RAVN, PETER
STAHN, RENATE
CHRISTENSEN, PETER ASTRUP

<120> TUMOR-SPECIFIC RECOGNITION MOLECULES

<130> VOSSM-0002

<140> 10/536,834
<141> 2005-05-31

<150> PCT/DE03/03994
<151> 2003-12-01

<150> DE 102 56 900.2
<151> 2002-11-29

<160> 152

<170> PatentIn Ver. 3.5

<210> 1
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 1
Asn Tyr Trp Leu Gly
1 5

<210> 2
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 2
Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe Lys
1 5 10 15
Gly

<210> 3
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 3
 Asp Ile Tyr Pro Gly Gly Ser Tyr Thr Asn Tyr Asn Glu Lys Phe Lys
 1 5 10 15

Gly

<210> 4
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 4
 Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr
 1 5 10

<210> 5
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 5
 Tyr Asp Ala Ala Gly Pro Gly Phe Ala Tyr
 1 5 10

<210> 6
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 6
 Tyr Asp Asn His Tyr Phe Asp Tyr
 1 5

<210> 7
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 7
 Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu
 1 5 10 15

<210> 8
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 8
 Arg Ser Ser Gln Ser Leu Leu His Ser Asn Gly Asn Thr Tyr Leu His
 1 5 10 15

<210> 9
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 9
 Lys Ser Ser Gln Ser Leu Leu His Ser Asp Gly Lys Thr Tyr Leu Tyr
 1 5 10 15

<210> 10
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 10
 Lys Val Ser Asn Arg Phe Ser
 1 5

<210> 11
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 11
 Glu Val Ser Ser Arg Phe Ser
 1 5

<210> 12
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 12
 Phe Gln Gly Ser His Val Pro Tyr Thr
 1 5

<210> 13
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 13
 Ser Gln Ser Thr His Val Pro Tyr Thr
 1 5

<210> 14
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 14
 Asn Tyr Trp Ile Gly
 1 5

<210> 15
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 15
 Asn Tyr Trp Met Gly
 1 5

<210> 16
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 16
 Asn Tyr Trp Trp Gly
 1 5

<210> 17
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 17
 Asn Tyr Trp Val Gly
 1 5

<210> 18
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 18
 Asp Ile Tyr Pro Gly Gly Asp Tyr Thr Asn Tyr Asn Glu Lys Phe Lys
 1 5 10 15

Gly

<210> 19
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 19
 Asp Ile Tyr Pro Gly Gly Asn Tyr Thr Asn Tyr Asn Glu Lys Phe Lys
 1 5 10 15

Gly

<210> 20
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 20
 Asp Ile Tyr Thr Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe Lys
 1 5 10 15

Gly

<210> 21
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 21
 Asp Ile Tyr Thr Gly Gly Asp Tyr Thr Asn Tyr Asn Glu Lys Phe Lys
 1 5 10 15

Gly

<210> 22
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 22

Asp Ile Tyr Thr Gly Gly Asn Tyr Thr Asn Tyr Asn Glu Lys Phe Lys
1 5 10 15

Gly

<210> 23

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 23

Asp Ile Tyr Thr Gly Gly Ser Tyr Thr Asn Tyr Asn Glu Lys Phe Lys
1 5 10 15

Gly

<210> 24

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 24

Asp Ile Tyr Ala Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe Lys
1 5 10 15

Gly

<210> 25

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 25

Asp Ile Tyr Ala Gly Gly Asp Tyr Thr Asn Tyr Asn Glu Lys Phe Lys
1 5 10 15

Gly

<210> 26
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 26
 Asp Ile Tyr Ala Gly Gly Asp Tyr Thr Asn Tyr Asn Glu Lys Phe Lys
 1 5 10 15

Gly

<210> 27
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 27
 Asp Ile Tyr Ala Gly Gly Ser Tyr Thr Asn Tyr Asn Glu Lys Phe Lys
 1 5 10 15

Gly

<210> 28
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 28
 Arg Pro Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu
 1 5 10 15

<210> 29
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 29

Arg	Pro	Ser	Gln	Ser	Ile	Val	His	Ser	Asn	Gly	Asn	Thr	Tyr	Leu	Glu
1				5					10					15	

<210> 30

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 30

Arg	Ser	Ser	Gln	Ser	Ile	Val	His	Ser	Asn	Gly	Asn	Thr	Tyr	Phe	Glu
1				5					10					15	

<210> 31

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 31

Arg	Pro	Ser	Gln	Ser	Leu	Val	His	Ser	Asn	Gly	Asn	Thr	Tyr	Leu	Glu
1				5					10					15	

<210> 32

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 32

Arg	Pro	Ser	Gln	Ser	Ile	Val	His	Ser	Asn	Gly	Asn	Thr	Tyr	Phe	Glu
1				5					10					15	

<210> 33

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 33

Arg	Ser	Ser	Gln	Ser	Leu	Val	His	Ser	Asn	Gly	Asn	Thr	Tyr	Phe	Glu
1				5					10					15	

<210> 34

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 34

Arg	Pro	Ser	Gln	Ser	Leu	Leu	His	Ser	Asn	Gly	Asn	Thr	Tyr	Leu	His
1				5					10					15	

<210> 35

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 35

Arg	Ser	Ser	Gln	Ser	Ile	Leu	His	Ser	Asn	Gly	Asn	Thr	Tyr	Leu	His
1				5					10					15	

<210> 36

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 36

Arg	Ser	Ser	Gln	Ser	Leu	Leu	His	Ser	Asn	Gly	Asn	Thr	Tyr	Phe	His
1				5					10					15	

<210> 37

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 37

Arg	Pro	Ser	Gln	Ser	Ile	Leu	His	Ser	Asn	Gly	Asn	Thr	Tyr	Leu	His
1				5					10					15	

<210> 38

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 38

Arg	Pro	Ser	Gln	Ser	Leu	Leu	His	Ser	Asn	Gly	Asn	Thr	Tyr	Phe	His
1				5					10					15	

<210> 39

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 39

Arg	Ser	Ser	Gln	Ser	Ile	Leu	His	Ser	Asn	Gly	Asn	Thr	Tyr	Phe	His
1				5					10					15	

<210> 40

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 40

Lys	Pro	Ser	Gln	Ser	Leu	Leu	His	Ser	Asp	Gly	Lys	Thr	Tyr	Leu	Tyr
1				5					10					15	

<210> 41

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 41

Lys Ser Ser Gln Ser Ile Leu His Ser Asp Gly Lys Thr Tyr Leu Tyr
1 5 10 15

<210> 42

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 42

Lys Ser Ser Gln Ser Leu Leu His Ser Asp Gly Lys Thr Tyr Phe Tyr
1 5 10 15

<210> 43

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 43

Lys Pro Ser Gln Ser Ile Leu His Ser Asp Gly Lys Thr Tyr Leu Tyr
1 5 10 15

<210> 44

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 44

Lys Pro Ser Gln Ser Ile Leu His Ser Asp Gly Lys Thr Tyr Leu Tyr
1 5 10 15

<210> 45

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 45

Lys Ser Ser Gln Ser Ile Leu His Ser Asp Gly Lys Thr Tyr Phe Tyr
 1 5 10 15

<210> 46

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 46

Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
 1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
 35 40 45

Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Gly Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Thr Val Thr Val Ser Ser
 115

<210> 47

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 47

Gln Val Gln Leu Lys Gln Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
 1 5 10 15

```

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
      20                25                30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
      35                40                45

Gly Asp Ile Tyr Pro Gly Gly Ser Tyr Thr Asn Tyr Asn Glu Lys Phe
      50                55                60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
      65                70                75                80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
      85                90                95

Ala Arg Tyr Asp Asn His Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Thr
      100               105               110

Leu Thr Val Ser Ser
      115

```

<210> 48

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 48

```

Gln Val Gln Leu Lys Gln Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
  1                5                10                15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
      20                25                30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
      35                40                45

Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
      50                55                60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
      65                70                75                80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
      85                90                95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
      100               105               110

Thr Thr Leu Thr Val Ser Ser
      115

```

<210> 49
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 49
 Glu Val Lys Leu Val Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
 1 5 10 15
 Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30
 Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
 35 40 45
 Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60
 Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80
 Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95
 Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110
 Thr Ser Val Thr Val Ser Ser
 115

<210> 50
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 50
 Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
 1 5 10 15
 Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30
 Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
 35 40 45
 Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
100 105 110

Thr Thr Val Thr Val Ser Ser
115

<210> 51

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 51

Glu Val Lys Leu Val Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
35 40 45

Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
100 105 110

Thr Thr Val Thr Val Ser Ser
115

<210> 52

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 52

Gln Val Gln Leu Lys Gln Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
 1 5 10 15
 Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30
 Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
 35 40 45
 Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60
 Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80
 Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95
 Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110
 Thr Leu Val Thr Val Ser Ala
 115

<210> 53

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 53

Gln Val Gln Leu Lys Gln Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
 1 5 10 15
 Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30
 Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
 35 40 45
 Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60
 Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80
 Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95
 Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Thr Val Thr Val Ser Ser
115

<210> 54
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 54
Gln Val Thr Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
1 5 10 15
Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30
Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
35 40 45
Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
50 55 60
Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
65 70 75 80
Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
85 90 95
Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
100 105 110
Thr Ser Val Thr Val Ser Ser
115

<210> 55
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 55
Gln Val Gln Leu Lys Gln Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
1 5 10 15
Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30
Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
35 40 45

Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60
 Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80
 Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95
 Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110
 Thr Ser Val Thr Val Ser Ser
 115

<210> 56

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 56

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30
 Trp Leu Gly Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
 35 40 45
 Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60
 Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80
 Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95
 Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110
 Thr Leu Val Thr Val Ser Ser
 115

<210> 57

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 57

Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala	
1				5					10					15		
Ser	Val	Lys	Val	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Thr	Asn	Tyr	
			20					25					30			
Trp	Leu	Gly	Trp	Val	Arg	Gln	Ala	Pro	Gly	Gln	Gly	Leu	Glu	Trp	Ile	
		35					40					45				
Gly	Asp	Ile	Tyr	Pro	Gly	Gly	Gly	Tyr	Thr	Asn	Tyr	Asn	Glu	Lys	Phe	
	50					55					60					
Lys	Gly	Lys	Ala	Thr	Leu	Thr	Ala	Asp	Thr	Ser	Ser	Ser	Thr	Ala	Tyr	
	65				70					75					80	
Met	Gln	Leu	Ser	Ser	Leu	Thr	Ser	Glu	Asp	Ser	Ala	Val	Tyr	Tyr	Cys	
			85						90					95		
Ala	Tyr	Tyr	Asp	Ala	Ala	Gly	Pro	Trp	Phe	Ala	Tyr	Trp	Gly	Gln	Gly	
			100					105					110			
Thr	Leu	Val	Thr	Val	Ser	Ser										
			115													

<210> 58

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 58

Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala	
1				5					10					15		
Ser	Val	Lys	Val	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Thr	Asn	Tyr	
			20					25					30			
Trp	Leu	Gly	Trp	Val	Arg	Gln	Ala	Pro	Gly	Gln	Gly	Leu	Glu	Trp	Ile	
		35					40					45				
Gly	Asp	Ile	Tyr	Pro	Gly	Gly	Gly	Tyr	Thr	Asn	Tyr	Asn	Glu	Lys	Phe	
	50					55					60					
Lys	Gly	Lys	Ala	Thr	Leu	Thr	Ala	Asp	Thr	Ser	Ser	Ser	Thr	Ala	Tyr	
	65				70					75					80	
Met	Gln	Leu	Ser	Arg	Leu	Thr	Ser	Glu	Asp	Ser	Ala	Val	Tyr	Phe	Cys	
			85						90					95		

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Leu Val Thr Val Ser Ser
 115

<210> 59

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 59

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

Trp Leu Gly Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
 35 40 45

Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Leu Val Thr Val Ser Ser
 115

<210> 60

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 60

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Arg Ile
 35 40 45

Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Leu Val Thr Val Ser Ser
 115

<210> 61
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 61
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
 35 40 45

Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Leu Val Thr Val Ser Ser
 115

<210> 62
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 62

```

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1              5              10              15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
          20          25          30
Trp Leu Gly Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
          35          40          45
Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
          50          55          60
Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
          65          70          75          80
Met Glu Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
          85          90          95
Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
          100          105          110
Thr Thr Val Thr Val Ser Ser
          115

```

<210> 63

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 63

```

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1              5              10              15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
          20          25          30
Trp Leu Gly Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
          35          40          45
Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
          50          55          60
Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
          65          70          75          80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Ser Ala Val Tyr Phe Cys
          85          90          95

```

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Leu Val Thr Val Ser Ser
 115

<210> 64

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 64

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

Trp Leu Gly Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
 35 40 45

Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
 85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Leu Val Thr Val Ser Ser
 115

<210> 65

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 65

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
 35 40 45
 Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60
 Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Phe Cys
 85 90 95
 Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110
 Thr Leu Val Thr Val Ser Ser
 115

<210> 66

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 66

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30
 Trp Leu Gly Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
 35 40 45
 Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60
 Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110
 Thr Thr Val Thr Val Ser Ser
 115

<210> 67
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 67
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Pro Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30
 Trp Leu Gly Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
 35 40 45
 Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60
 Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110
 Thr Leu Val Thr Val Ser Ser
 115

<210> 68
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 68
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30
 Trp Leu Gly Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
 35 40 45
 Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 69

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 69

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30

Trp Leu Gly Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 70

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 70

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

Trp Leu Gly Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
 35 40 45

Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Thr Val Thr Val Ser Ser
 115

<210> 71

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 71

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
 35 40 45

Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
 85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Thr Val Thr Val Ser Ser
115

<210> 72

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 72

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Phe Cys
85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
100 105 110

Thr Thr Val Thr Val Ser Ser
115

<210> 73

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 73

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30

Trp Leu Gly Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60
 Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80
 Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
 85 90 95
 Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110
 Thr Thr Val Thr Val Ser Ser
 115

<210> 74
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 74
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30
 Trp Leu Gly Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
 35 40 45
 Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60
 Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95
 Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110
 Thr Thr Val Thr Val Ser Ser
 115

<210> 75
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 75

```

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1              5              10              15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
      20              25              30
Trp Leu Gly Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
      35              40              45
Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
      50              55              60
Lys Gly Arg Val Thr Ile Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
      65              70              75              80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Phe Cys
      85              90              95
Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
      100              105              110
Thr Leu Val Thr Val Ser Ser
      115

```

<210> 76

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 76

```

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1              5              10              15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
      20              25              30
Trp Leu Gly Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
      35              40              45
Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
      50              55              60
Lys Gly Arg Val Thr Ile Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
      65              70              75              80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
      85              90              95

```

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Leu Val Thr Val Ser Ser
 115

<210> 77

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 77

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
 35 40 45

Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

Lys Gly Arg Val Thr Ile Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Leu Val Thr Val Ser Ser
 115

<210> 78

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 78

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

Trp Leu Gly Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60
 Lys Gly Arg Val Thr Ile Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110
 Thr Leu Val Thr Val Ser Ser
 115

<210> 79

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 79

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30
 Trp Leu Gly Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60
 Lys Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110
 Thr Leu Val Thr Val Ser Ser
 115

<210> 80

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 80

```

Asp Ile Gln Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
 1           5           10           15
Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
          20           25           30
Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
          35           40           45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
          50           55           60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65           70           75           80
Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly
          85           90           95
Ser His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
          100          105          110

```

Arg Ala

<210> 81

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 81

```

Asp Ile Val Ile Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
 1           5           10           15
Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
          20           25           30
Asn Gly Asn Thr Tyr Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser
          35           40           45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
          50           55           60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65           70           75           80
Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Phe Cys Ser Gln Ser
          85           90           95

```

Thr His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
 100 105 110

Arg Ala

<210> 82
 <211> 114
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 82
 Asp Ile Gln Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
 1 5 10 15
 Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
 20 25 30
 Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
 35 40 45
 Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
 50 55 60
 Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65 70 75 80
 Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly
 85 90 95
 Ser His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Leu Lys
 100 105 110

Arg Ala

<210> 83
 <211> 114
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 83
 Asp Val Leu Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
 1 5 10 15
 Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
 20 25 30

```

Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
   35                                40                                45

Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
   50                                55                                60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
   65                                70                                75                                80

Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly
                                85                                90                                95

Ser His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
                                100                                105                                110

```

Arg Ala

```

<210> 84
<211> 114
<212> PRT
<213> Artificial Sequence

```

```

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

```

```

<400> 84
Asp Val Leu Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
  1                                5                                10                                15

Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
                                20                                25                                30

Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
   35                                40                                45

Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
   50                                55                                60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
   65                                70                                75                                80

Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly
                                85                                90                                95

Ser His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Leu Lys
                                100                                105                                110

```

Arg Ala

<210> 85
 <211> 114
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 85

Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Leu	Ser	Leu	Pro	Val	Thr	Pro	Gly	1	5	10	15
Glu	Pro	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Ser	Gln	Ser	Ile	Val	His	Ser	20	25	30	
Asn	Gly	Asn	Thr	Tyr	Leu	Glu	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	Ser	35	40	45	
Pro	Lys	Leu	Leu	Ile	Tyr	Lys	Val	Ser	Asn	Arg	Phe	Ser	Gly	Val	Pro	50	55	60	
Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile	65	70	75	80
Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Phe	Gln	Gly	85	90	95	
Ser	His	Val	Pro	Tyr	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Lys	100	105	110	

Arg Ala

<210> 86
 <211> 114
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 86

Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Leu	Ser	Leu	Pro	Val	Thr	Pro	Gly	1	5	10	15
Glu	Pro	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Ser	Gln	Ser	Ile	Val	His	Ser	20	25	30	
Asn	Gly	Asn	Thr	Tyr	Leu	Glu	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	Ser	35	40	45	
Pro	Lys	Leu	Leu	Ile	Tyr	Lys	Val	Ser	Asn	Arg	Phe	Ser	Gly	Val	Pro	50	55	60	

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65 70 75 80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly
 85 90 95

Ser His Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 100 105 110

Arg Ala

<210> 87

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 87

Asp Ile Gln Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1 5 10 15

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
 20 25 30

Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
 35 40 45

Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
 50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65 70 75 80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly
 85 90 95

Ser His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
 100 105 110

Arg Ala

<210> 88

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 88

```

Asp Ile Gln Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1              5              10              15

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
              20              25              30

Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
              35              40              45

Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
              50              55              60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65              70              75              80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly
              85              90              95

Ser His Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
              100              105              110

Arg Ala

```

<210> 89

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 89

```

Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1              5              10              15

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
              20              25              30

Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
              35              40              45

Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
              50              55              60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65              70              75              80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly
              85              90              95

Ser His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
              100              105              110

Arg Ala

```

<210> 90
 <211> 114
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 90

Asp	Ile	Val	Met	Thr	Gln	Ser	Pro	Leu	Ser	Leu	Pro	Val	Thr	Pro	Gly
1				5				10						15	
Glu	Pro	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Ser	Gln	Ser	Ile	Val	His	Ser
			20					25					30		
Asn	Gly	Asn	Thr	Tyr	Leu	Glu	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	Ser
		35					40					45			
Pro	Lys	Leu	Leu	Ile	Tyr	Lys	Val	Ser	Asn	Arg	Phe	Ser	Gly	Val	Pro
	50					55					60				
Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile
65					70					75					80
Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Phe	Gln	Gly
				85					90					95	
Ser	His	Val	Pro	Tyr	Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile	Lys
			100					105					110		

Arg Ala

<210> 91
 <211> 114
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 91

Asp	Ile	Val	Met	Thr	Gln	Ser	Pro	Leu	Ser	Leu	Pro	Val	Thr	Pro	Gly
1				5				10						15	
Glu	Pro	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Ser	Gln	Ser	Ile	Val	His	Ser
			20					25					30		
Asn	Gly	Asn	Thr	Tyr	Leu	Glu	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	Ser
		35					40					45			

Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly
85 90 95

Ser His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

Arg Ala

<210> 92
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 92
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
1 5 10 15

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
20 25 30

Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
35 40 45

Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly
85 90 95

Ser His Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105 110

Arg Ala

<210> 93
<211> 114
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 93

```

Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val Thr Pro Gly
 1              5              10              15

Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
              20              25              30

Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
              35              40              45

Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
              50              55              60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65              70              75              80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly
              85              90              95

Ser His Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
              100              105              110

Arg Ala

```

<210> 94

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 94

```

Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly
 1              5              10              15

Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
              20              25              30

Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
              35              40              45

Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
              50              55              60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65              70              75              80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly
              85              90              95

```

Ser His Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105 110

Arg Ala

<210> 95

<211> 276

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 95

Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
35 40 45

Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Gly Phe Ala Tyr Trp Gly Gln Gly
100 105 110

Thr Thr Val Thr Val Ser Ser Ala Ser Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Ser Ala Arg Asp Ile Gln Met Thr Gln Thr
130 135 140

Pro Leu Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys
145 150 155 160

Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu
165 170 175

Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys
180 185 190

Val Ser Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly
195 200 205

Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp
210 215 220

Leu Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Tyr Thr Phe
225 230 235 240

Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg Ala Ala Ala His His His
245 250 255

His His His Gly Ala Ala Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
260 265 270

Asn Gly Ala Ala
275

<210> 96

<211> 267

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 96

Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
35 40 45

Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Gly Phe Ala Tyr Trp Gly Gln Gly
100 105 110

Thr Thr Val Thr Val Ser Ser Ala Ser Ser Gly Ser Gly Ser Ser Ala
115 120 125

Asp Ile Gln Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
130 135 140

Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
145 150 155 160

Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
165 170 175

Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
 180 185 190

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 195 200 205

Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly
 210 215 220

Ser His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
 225 230 235 240

Arg Ala Ala Ala His His His His His His Gly Ala Ala Glu Gln Lys
 245 250 255

Leu Ile Ser Glu Glu Asp Leu Asn Gly Ala Ala
 260 265

<210> 97

<211> 266

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 97

Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
 1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
 35 40 45

Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95

Ala Tyr Tyr Asp Ala Ala Gly Pro Gly Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Thr Val Thr Val Ser Ser Ala Ser Ser Gly Gly Ser Ser Ala Asp
 115 120 125

Ile Gln Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly Asp
 130 135 140

Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn
 145 150 155 160

Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro
 165 170 175
 Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro Asp
 180 185 190
 Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser
 195 200 205
 Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly Ser
 210 215 220
 His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg
 225 230 235 240
 Ala Ala Ala His His His His His His Gly Ala Ala Glu Gln Lys Leu
 245 250 255
 Ile Ser Glu Glu Asp Leu Asn Gly Ala Ala
 260 265

<210> 98
 <211> 265
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 98
 Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
 1 5 10 15
 Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30
 Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
 35 40 45
 Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60
 Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80
 Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95
 Ala Tyr Tyr Asp Ala Ala Gly Pro Gly Phe Ala Tyr Trp Gly Gln Gly
 100 105 110
 Thr Thr Val Thr Val Ser Ser Ala Ser Ser Gly Ser Ser Ala Asp Ile
 115 120 125

Gln Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly Asp Gln
 130 135 140
 Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly
 145 150 155 160
 Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Lys
 165 170 175
 Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro Asp Arg
 180 185 190
 Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg
 195 200 205
 Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly Ser His
 210 215 220
 Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg Ala
 225 230 235 240
 Ala Ala His His His His His His Gly Ala Ala Glu Gln Lys Leu Ile
 245 250 255
 Ser Glu Glu Asp Leu Asn Gly Ala Ala
 260 265

<210> 99

<211> 264

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 99

Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
 1 5 10 15
 Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30
 Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
 35 40 45
 Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60
 Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80
 Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95
 Ala Tyr Tyr Asp Ala Ala Gly Pro Gly Phe Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Thr Val Thr Val Ser Ser Ala Ser Ser Ser Ser Ala Asp Ile Gln
 115 120 125
 Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly Asp Gln Ala
 130 135 140
 Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn
 145 150 155 160
 Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu
 165 170 175
 Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro Asp Arg Phe
 180 185 190
 Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val
 195 200 205
 Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val
 210 215 220
 Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg Ala Ala
 225 230 235 240
 Ala His His His His His His Gly Ala Ala Glu Gln Lys Leu Ile Ser
 245 250 255
 Glu Glu Asp Leu Asn Gly Ala Ala
 260

<210> 100

<211> 263

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 100

Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
 1 5 10 15
 Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30
 Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
 35 40 45
 Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60
 Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80

Met	Gln	Leu	Ser	Ser	Leu	Thr	Ser	Glu	Asp	Ser	Ala	Val	Tyr	Phe	Cys	
				85					90					95		
Ala	Tyr	Tyr	Asp	Ala	Ala	Gly	Pro	Gly	Phe	Ala	Tyr	Trp	Gly	Gln	Gly	
				100					105					110		
Thr	Thr	Val	Thr	Val	Ser	Ser	Ala	Ser	Ser	Ser	Ala	Asp	Ile	Gln	Met	
				115					120					125		
Thr	Gln	Thr	Pro	Leu	Ser	Leu	Pro	Val	Ser	Leu	Gly	Asp	Gln	Ala	Ser	
				130					135					140		
Ile	Ser	Cys	Arg	Ser	Ser	Gln	Ser	Ile	Val	His	Ser	Asn	Gly	Asn	Thr	
				145					150					155		
Tyr	Leu	Glu	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	Ser	Pro	Lys	Leu	Leu	
				165					170					175		
Ile	Tyr	Lys	Val	Ser	Asn	Arg	Phe	Ser	Gly	Val	Pro	Asp	Arg	Phe	Ser	
				180					185					190		
Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile	Ser	Arg	Val	Glu	
				195					200					205		
Ala	Glu	Asp	Leu	Gly	Val	Tyr	Tyr	Cys	Phe	Gln	Gly	Ser	His	Val	Pro	
				210					215					220		
Tyr	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Leu	Glu	Ile	Lys	Arg	Ala	Ala	Ala	
				225					230					235		
His	His	His	His	His	His	Gly	Ala	Ala	Glu	Gln	Lys	Leu	Ile	Ser	Glu	
				245					250					255		
Glu	Asp	Leu	Asn	Gly	Ala	Ala										
				260												

$\langle 210 \rangle$ 101

<211> 262

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 101

Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
35 40 45

Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80
 Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95
 Ala Tyr Tyr Asp Ala Ala Gly Pro Gly Phe Ala Tyr Trp Gly Gln Gly
 100 105 110
 Thr Thr Val Thr Val Ser Ser Ala Ser Ser Ala Asp Ile Gln Met Thr
 115 120 125
 Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile
 130 135 140
 Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
 145 150 155 160
 Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile
 165 170 175
 Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly
 180 185 190
 Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
 195 200 205
 Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Tyr
 210 215 220
 Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg Ala Ala Ala His
 225 230 235 240
 His His His His His Gly Ala Ala Glu Gln Lys Leu Ile Ser Glu Glu
 245 250 255
 Asp Leu Asn Gly Ala Ala
 260

<210> 102

<211> 261

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 102

Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
 1 5 10 15
 Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
 35 40 45
 Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60
 Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80
 Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95
 Ala Tyr Tyr Asp Ala Ala Gly Pro Gly Phe Ala Tyr Trp Gly Gln Gly
 100 105 110
 Thr Thr Val Thr Val Ser Ser Ala Ser Ala Asp Ile Gln Met Thr Gln
 115 120 125
 Thr Pro Leu Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser
 130 135 140
 Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu
 145 150 155 160
 Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr
 165 170 175
 Lys Val Ser Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser
 180 185 190
 Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu
 195 200 205
 Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Tyr Thr
 210 215 220
 Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg Ala Ala Ala His His
 225 230 235 240
 His His His His Gly Ala Ala Glu Gln Lys Leu Ile Ser Glu Glu Asp
 245 250 255
 Leu Asn Gly Ala Ala
 260

<210> 103

<211> 260

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 103

Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
 1 5 10 15

```

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
      20                      25                      30

Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
      35                      40                      45

Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
      50                      55                      60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
      65                      70                      75                      80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
      85                      90                      95

Ala Tyr Tyr Asp Ala Ala Gly Pro Gly Phe Ala Tyr Trp Gly Gln Gly
      100                     105                     110

Thr Thr Val Thr Val Ser Ser Ala Ala Asp Ile Gln Met Thr Gln Thr
      115                     120                     125

Pro Leu Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys
      130                     135                     140

Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu
      145                     150                     155                     160

Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys
      165                     170                     175

Val Ser Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly
      180                     185                     190

Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp
      195                     200                     205

Leu Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Tyr Thr Phe
      210                     215                     220

Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg Ala Ala Ala His His His
      225                     230                     235                     240

His His His Gly Ala Ala Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
      245                     250                     255

Asn Gly Ala Ala
      260

```

<210> 104

<211> 259

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 104

Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
 1 5 10 15
 Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30
 Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
 35 40 45
 Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60
 Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80
 Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95
 Ala Tyr Tyr Asp Ala Ala Gly Pro Gly Phe Ala Tyr Trp Gly Gln Gly
 100 105 110
 Thr Thr Val Thr Val Ser Ser Ala Asp Ile Gln Met Thr Gln Thr Pro
 115 120 125
 Leu Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg
 130 135 140
 Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu Trp
 145 150 155 160
 Tyr Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val
 165 170 175
 Ser Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser
 180 185 190
 Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu
 195 200 205
 Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Tyr Thr Phe Gly
 210 215 220
 Gly Gly Thr Lys Leu Glu Ile Lys Arg Ala Ala Ala His His His His
 225 230 235 240
 His His Gly Ala Ala Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Asn
 245 250 255
 Gly Ala Ala

<210> 105

<211> 258

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 105

Gln	Val	Gln	Leu	Lys	Glu	Ser	Gly	Ala	Glu	Leu	Val	Arg	Pro	Gly	Thr	1	5	10	15
Ser	Val	Lys	Ile	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Thr	Asn	Tyr	20	25	30	
Trp	Leu	Gly	Trp	Val	Lys	Gln	Arg	Pro	Gly	His	Gly	Leu	Glu	Trp	Ile	35	40	45	
Gly	Asp	Ile	Tyr	Pro	Gly	Gly	Gly	Tyr	Thr	Asn	Tyr	Asn	Glu	Lys	Phe	50	55	60	
Lys	Gly	Lys	Ala	Thr	Leu	Thr	Ala	Asp	Thr	Ser	Ser	Ser	Thr	Ala	Tyr	65	70	75	80
Met	Gln	Leu	Ser	Ser	Leu	Thr	Ser	Glu	Asp	Ser	Ala	Val	Tyr	Phe	Cys	85	90	95	
Ala	Tyr	Tyr	Asp	Ala	Ala	Gly	Pro	Gly	Phe	Ala	Tyr	Trp	Gly	Gln	Gly	100	105	110	
Thr	Thr	Val	Thr	Val	Ser	Ser	Asp	Ile	Gln	Met	Thr	Gln	Thr	Pro	Leu	115	120	125	
Ser	Leu	Pro	Val	Ser	Leu	Gly	Asp	Gln	Ala	Ser	Ile	Ser	Cys	Arg	Ser	130	135	140	
Ser	Gln	Ser	Ile	Val	His	Ser	Asn	Gly	Asn	Thr	Tyr	Leu	Glu	Trp	Tyr	145	150	155	160
Leu	Gln	Lys	Pro	Gly	Gln	Ser	Pro	Lys	Leu	Leu	Ile	Tyr	Lys	Val	Ser	165	170	175	
Asn	Arg	Phe	Ser	Gly	Val	Pro	Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	180	185	190	
Thr	Asp	Phe	Thr	Leu	Lys	Ile	Ser	Arg	Val	Glu	Ala	Glu	Asp	Leu	Gly	195	200	205	
Val	Tyr	Tyr	Cys	Phe	Gln	Gly	Ser	His	Val	Pro	Tyr	Thr	Phe	Gly	Gly	210	215	220	
Gly	Thr	Lys	Leu	Glu	Ile	Lys	Arg	Ala	Ala	Ala	His	His	His	His	His	225	230	235	240
His	Gly	Ala	Ala	Glu	Gln	Lys	Leu	Ile	Ser	Glu	Glu	Asp	Leu	Asn	Gly	245	250	255	
Ala	Ala																		

<210> 106

<211> 257

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 106

Gln	Val	Gln	Leu	Lys	Glu	Ser	Gly	Ala	Glu	Leu	Val	Arg	Pro	Gly	Thr	1	5	10	15
Ser	Val	Lys	Ile	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Thr	Asn	Tyr	20	25	30	
Trp	Leu	Gly	Trp	Val	Lys	Gln	Arg	Pro	Gly	His	Gly	Leu	Glu	Trp	Ile	35	40	45	
Gly	Asp	Ile	Tyr	Pro	Gly	Gly	Gly	Tyr	Thr	Asn	Tyr	Asn	Glu	Lys	Phe	50	55	60	
Lys	Gly	Lys	Ala	Thr	Leu	Thr	Ala	Asp	Thr	Ser	Ser	Ser	Thr	Ala	Tyr	65	70	75	80
Met	Gln	Leu	Ser	Ser	Leu	Thr	Ser	Glu	Asp	Ser	Ala	Val	Tyr	Phe	Cys	85	90	95	
Ala	Tyr	Tyr	Asp	Ala	Ala	Gly	Pro	Gly	Phe	Ala	Tyr	Trp	Gly	Gln	Gly	100	105	110	
Thr	Thr	Val	Thr	Val	Ser	Asp	Ile	Gln	Met	Thr	Gln	Thr	Pro	Leu	Ser	115	120	125	
Leu	Pro	Val	Ser	Leu	Gly	Asp	Gln	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Ser	130	135	140	
Gln	Ser	Ile	Val	His	Ser	Asn	Gly	Asn	Thr	Tyr	Leu	Glu	Trp	Tyr	Leu	145	150	155	160
Gln	Lys	Pro	Gly	Gln	Ser	Pro	Lys	Leu	Leu	Ile	Tyr	Lys	Val	Ser	Asn	165	170	175	
Arg	Phe	Ser	Gly	Val	Pro	Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	180	185	190	
Asp	Phe	Thr	Leu	Lys	Ile	Ser	Arg	Val	Glu	Ala	Glu	Asp	Leu	Gly	Val	195	200	205	
Tyr	Tyr	Cys	Phe	Gln	Gly	Ser	His	Val	Pro	Tyr	Thr	Phe	Gly	Gly	Gly	210	215	220	
Thr	Lys	Leu	Glu	Ile	Lys	Arg	Ala	Ala	Ala	His	His	His	His	His	His	225	230	235	240
Gly	Ala	Ala	Glu	Gln	Lys	Leu	Ile	Ser	Glu	Glu	Asp	Leu	Asn	Gly	Ala	245	250	255	

Ala

<210> 107

<211> 219

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 107

```

Asp Ile Val Ile Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
 1             5             10             15
Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
          20             25             30
Asn Gly Asn Thr Tyr Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser
          35             40             45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
          50             55             60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65             70             75             80
Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Phe Cys Ser Gln Ser
          85             90             95
Thr His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
          100             105             110
Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro Ser Ser Glu
          115             120             125
Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu Asn Asn Phe
          130             135             140
Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly Ser Glu Arg
145             150             155             160
Gln Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp Ser
          165             170             175
Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr Glu
          180             185             190
Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr Ser Thr Ser
          195             200             205
Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
          210             215

```


<210> 108

<211> 219

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 108

Asp	Ile	Gln	Met	Thr	Gln	Thr	Pro	Leu	Ser	Leu	Pro	Val	Ser	Leu	Gly
1				5					10					15	

Asp	Gln	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Ser	Gln	Ser	Ile	Val	His	Ser
			20					25					30		

Asn	Gly	Asn	Thr	Tyr	Leu	Glu	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	Ser
		35					40					45			

Pro	Lys	Leu	Leu	Ile	Tyr	Lys	Val	Ser	Asn	Arg	Phe	Ser	Gly	Val	Pro
	50					55					60				

Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile
65					70					75					80

Ser	Arg	Val	Glu	Ala	Glu	Asp	Leu	Gly	Val	Tyr	Tyr	Cys	Phe	Gln	Gly
				85					90					95	

Ser	His	Val	Pro	Tyr	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Leu	Glu	Ile	Lys
			100					105					110		

Arg	Ala	Asp	Ala	Ala	Pro	Thr	Val	Ser	Ile	Phe	Pro	Pro	Ser	Ser	Glu
		115					120					125			

Gln	Leu	Thr	Ser	Gly	Gly	Ala	Ser	Val	Val	Cys	Phe	Leu	Asn	Asn	Phe
	130					135					140				

Tyr	Pro	Lys	Asp	Ile	Asn	Val	Lys	Trp	Lys	Ile	Asp	Gly	Ser	Glu	Arg
145					150					155					160

Gln	Asn	Gly	Val	Leu	Asn	Ser	Trp	Thr	Asp	Gln	Asp	Ser	Lys	Asp	Ser
				165					170					175	

Thr	Tyr	Ser	Met	Ser	Ser	Thr	Leu	Thr	Leu	Thr	Lys	Asp	Glu	Tyr	Glu
			180					185					190		

Arg	His	Asn	Ser	Tyr	Thr	Cys	Glu	Ala	Thr	His	Lys	Thr	Ser	Thr	Ser
		195					200					205			

Pro	Ile	Val	Lys	Ser	Phe	Asn	Arg	Asn	Glu	Cys
	210						215			

<210> 109

<211> 571

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 109

Gln	Val	Gln	Leu	Lys	Gln	Ser	Gly	Ala	Glu	Leu	Val	Arg	Pro	Gly	Thr	1	5	10	15
Ser	Val	Lys	Ile	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Thr	Asn	Tyr	20	25	30	
Trp	Leu	Gly	Trp	Val	Lys	Gln	Arg	Pro	Gly	His	Gly	Leu	Glu	Trp	Ile	35	40	45	
Gly	Asp	Ile	Tyr	Pro	Gly	Gly	Ser	Tyr	Thr	Asn	Tyr	Asn	Glu	Lys	Phe	50	55	60	
Lys	Gly	Lys	Ala	Thr	Leu	Thr	Ala	Asp	Thr	Ser	Ser	Ser	Thr	Ala	Tyr	65	70	75	80
Met	Gln	Leu	Ser	Ser	Leu	Thr	Ser	Glu	Asp	Ser	Ala	Val	Tyr	Phe	Cys	85	90	95	
Ala	Arg	Tyr	Asp	Asn	His	Tyr	Phe	Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Thr	100	105	110	
Leu	Thr	Val	Ser	Glu	Ser	Gln	Ser	Phe	Pro	Asn	Val	Phe	Pro	Leu	Val	115	120	125	
Ser	Cys	Glu	Ser	Pro	Leu	Ser	Asp	Lys	Asn	Leu	Val	Ala	Met	Gly	Cys	130	135	140	
Leu	Ala	Arg	Asp	Phe	Leu	Pro	Ser	Thr	Ile	Ser	Phe	Thr	Trp	Asn	Tyr	145	150	155	160
Gln	Asn	Asn	Thr	Glu	Val	Ile	Gln	Gly	Ile	Arg	Thr	Phe	Pro	Thr	Leu	165	170	175	
Arg	Thr	Gly	Gly	Lys	Tyr	Leu	Ala	Thr	Ser	Gln	Val	Leu	Leu	Ser	Pro	180	185	190	
Lys	Ser	Ile	Leu	Glu	Gly	Ser	Asp	Glu	Tyr	Leu	Val	Cys	Lys	Ile	His	195	200	205	
Tyr	Gly	Gly	Lys	Asn	Arg	Asp	Leu	His	Val	Pro	Ile	Pro	Ala	Val	Ala	210	215	220	
Glu	Met	Asn	Pro	Asn	Val	Asn	Val	Phe	Val	Pro	Pro	Arg	Asp	Gly	Phe	225	230	235	240
Ser	Gly	Pro	Ala	Pro	Arg	Lys	Ser	Lys	Leu	Ile	Cys	Glu	Ala	Thr	Asn	245	250	255	
Phe	Thr	Pro	Lys	Pro	Ile	Thr	Val	Ser	Trp	Leu	Lys	Asp	Gly	Lys	Leu	260	265	270	
Val	Glu	Ser	Gly	Phe	Thr	Thr	Asp	Pro	Val	Thr	Ile	Glu	Asn	Lys	Gly	275	280	285	

Ser Thr Pro Gln Thr Tyr Lys Val Ile Ser Thr Leu Thr Ile Ser Glu
 290 295 300
 Ile Asp Trp Leu Asn Leu Asn Val Tyr Thr Cys Arg Val Asp His Arg
 305 310 315 320
 Gly Leu Thr Phe Leu Lys Asn Val Ser Ser Thr Cys Ala Ala Ser Pro
 325 330 335
 Ser Thr Asp Ile Leu Thr Phe Thr Ile Pro Pro Ser Phe Ala Asp Ile
 340 345 350
 Phe Leu Ser Lys Ser Ala Asn Leu Thr Cys Leu Val Ser Asn Leu Ala
 355 360 365
 Thr Tyr Glu Thr Leu Asn Ile Ser Trp Ala Ser Gln Ser Gly Glu Pro
 370 375 380
 Leu Glu Thr Lys Ile Lys Ile Met Glu Ser His Pro Asn Gly Thr Phe
 385 390 395 400
 Ser Ala Lys Gly Val Ala Ser Val Cys Val Glu Asp Trp Asn Asn Arg
 405 410 415
 Lys Glu Phe Val Cys Thr Val Thr His Arg Asp Leu Pro Ser Pro Gln
 420 425 430
 Lys Lys Phe Ile Ser Lys Pro Asn Glu Val His Lys His Pro Pro Ala
 435 440 445
 Val Tyr Leu Leu Pro Pro Ala Arg Glu Gln Leu Asn Leu Arg Glu Ser
 450 455 460
 Ala Thr Val Thr Cys Leu Val Lys Gly Phe Ser Pro Ala Asp Ile Ser
 465 470 475 480
 Val Gln Trp Leu Gln Arg Gly Gln Leu Leu Pro Gln Glu Lys Tyr Val
 485 490 495
 Thr Ser Ala Pro Met Pro Glu Pro Gly Ala Pro Gly Phe Tyr Phe Thr
 500 505 510
 His Ser Ile Leu Thr Val Thr Glu Glu Glu Trp Asn Ser Gly Glu Thr
 515 520 525
 Tyr Thr Cys Val Val Gly His Glu Ala Leu Pro His Leu Val Thr Glu
 530 535 540
 Arg Thr Val Asp Lys Ser Thr Gly Lys Pro Thr Leu Tyr Asn Val Ser
 545 550 555 560
 Leu Ile Met Ser Asp Thr Gly Gly Thr Cys Tyr
 565 570

<210> 110
 <211> 573
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 110
 Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
 1 5 10 15
 Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30
 Trp Leu Gly Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
 35 40 45
 Gly Asp Ile Tyr Pro Gly Gly Gly Tyr Thr Asn Tyr Asn Glu Lys Phe
 50 55 60
 Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr
 65 70 75 80
 Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95
 Ala Tyr Tyr Asp Ala Ala Gly Pro Trp Phe Ala Tyr Trp Gly Gln Gly
 100 105 110
 Thr Thr Val Thr Val Ser Glu Ser Gln Ser Phe Pro Asn Val Phe Pro
 115 120 125
 Leu Val Ser Cys Glu Ser Pro Leu Ser Asp Lys Asn Leu Val Ala Met
 130 135 140
 Gly Cys Leu Ala Arg Asp Phe Leu Pro Ser Thr Ile Ser Phe Thr Trp
 145 150 155 160
 Asn Tyr Gln Asn Asn Thr Glu Val Ile Gln Gly Ile Arg Thr Phe Pro
 165 170 175
 Thr Leu Arg Thr Gly Gly Lys Tyr Leu Ala Thr Ser Gln Val Leu Leu
 180 185 190
 Ser Pro Lys Ser Ile Leu Glu Gly Ser Asp Glu Tyr Leu Val Cys Lys
 195 200 205
 Ile His Tyr Gly Gly Lys Asn Arg Asp Leu His Val Pro Ile Pro Ala
 210 215 220
 Val Ala Glu Met Asn Pro Asn Val Asn Val Phe Val Pro Pro Arg Asp
 225 230 235 240
 Gly Phe Ser Gly Pro Ala Pro Arg Lys Ser Lys Leu Ile Cys Glu Ala
 245 250 255

Thr	Asn	Phe	Thr	Pro	Lys	Pro	Ile	Thr	Val	Ser	Trp	Leu	Lys	Asp	Gly	260	265	270
Lys	Leu	Val	Glu	Ser	Gly	Phe	Thr	Thr	Asp	Pro	Val	Thr	Ile	Glu	Asn	275	280	285
Lys	Gly	Ser	Thr	Pro	Gln	Thr	Tyr	Lys	Val	Ile	Ser	Thr	Leu	Thr	Ile	290	295	300
Ser	Glu	Ile	Asp	Trp	Leu	Asn	Leu	Asn	Val	Tyr	Thr	Cys	Arg	Val	Asp	305	310	315
His	Arg	Gly	Leu	Thr	Phe	Leu	Lys	Asn	Val	Ser	Ser	Thr	Cys	Ala	Ala	325	330	335
Ser	Pro	Ser	Thr	Asp	Ile	Leu	Thr	Phe	Thr	Ile	Pro	Pro	Ser	Phe	Ala	340	345	350
Asp	Ile	Phe	Leu	Ser	Lys	Ser	Ala	Asn	Leu	Thr	Cys	Leu	Val	Ser	Asn	355	360	365
Leu	Ala	Thr	Tyr	Glu	Thr	Leu	Asn	Ile	Ser	Trp	Ala	Ser	Gln	Ser	Gly	370	375	380
Glu	Pro	Leu	Glu	Thr	Lys	Ile	Lys	Ile	Met	Glu	Ser	His	Pro	Asn	Gly	385	390	395
Thr	Phe	Ser	Ala	Lys	Gly	Val	Ala	Ser	Val	Cys	Val	Glu	Asp	Trp	Asn	405	410	415
Asn	Arg	Lys	Glu	Phe	Val	Cys	Thr	Val	Thr	His	Arg	Asp	Leu	Pro	Ser	420	425	430
Pro	Gln	Lys	Lys	Phe	Ile	Ser	Lys	Pro	Asn	Glu	Val	His	Lys	His	Pro	435	440	445
Pro	Ala	Val	Tyr	Leu	Leu	Pro	Pro	Ala	Arg	Glu	Gln	Leu	Asn	Leu	Arg	450	455	460
Glu	Ser	Ala	Thr	Val	Thr	Cys	Leu	Val	Lys	Gly	Phe	Ser	Pro	Ala	Asp	465	470	475
Ile	Ser	Val	Gln	Trp	Leu	Gln	Arg	Gly	Gln	Leu	Leu	Pro	Gln	Glu	Lys	485	490	495
Tyr	Val	Thr	Ser	Ala	Pro	Met	Pro	Glu	Pro	Gly	Ala	Pro	Gly	Phe	Tyr	500	505	510
Phe	Thr	His	Ser	Ile	Leu	Thr	Val	Thr	Glu	Glu	Glu	Trp	Asn	Ser	Gly	515	520	525
Glu	Thr	Tyr	Thr	Cys	Val	Val	Gly	His	Glu	Ala	Leu	Pro	His	Leu	Val	530	535	540
Thr	Glu	Arg	Thr	Val	Asp	Lys	Ser	Thr	Gly	Lys	Pro	Thr	Leu	Tyr	Asn	545	550	555

Val Ser Leu Ile Met Ser Asp Thr Gly Gly Thr Cys Tyr
565 570

```
<210> 111
<211> 448
<212> PRT
<213> Artificial Sequence
```

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 111															
Gln	Val	Gln	Leu	Lys	Glu	Ser	Gly	Ala	Glu	Leu	Val	Arg	Pro	Gly	Thr
1				5					10					15	
Ser	Val	Lys	Ile	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Thr	Asn	Tyr
			20					25					30		
Trp	Leu	Gly	Trp	Val	Lys	Gln	Arg	Pro	Gly	His	Gly	Leu	Glu	Trp	Ile
		35					40					45			
Gly	Asp	Ile	Tyr	Pro	Gly	Gly	Gly	Tyr	Thr	Asn	Tyr	Asn	Glu	Lys	Phe
	50					55					60				
Lys	Gly	Lys	Ala	Thr	Leu	Thr	Ala	Asp	Thr	Ser	Ser	Ser	Thr	Ala	Tyr
65					70					75					80
Met	Gln	Leu	Ser	Ser	Leu	Thr	Ser	Glu	Asp	Ser	Ala	Val	Tyr	Phe	Cys
				85					90					95	
Ala	Tyr	Tyr	Asp	Ala	Ala	Gly	Pro	Trp	Phe	Ala	Tyr	Trp	Gly	Gln	Gly
			100					105					110		
Thr	Thr	Val	Thr	Val	Ser	Gly	Ser	Thr	Lys	Gly	Pro	Ser	Val	Phe	Pro
		115					120					125			
Leu	Ala	Pro	Ser	Ser	Lys	Ser	Thr	Ser	Gly	Gly	Thr	Ala	Ala	Leu	Gly
	130					135					140				
Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr	Val	Ser	Trp	Asn
145					150					155					160
Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro	Ala	Val	Leu	Gln
				165					170					175	
Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	Val	Thr	Val	Pro	Ser	Ser
			180					185					190		
Ser	Leu	Gly	Thr	Gln	Thr	Tyr	Ile	Cys	Asn	Val	Asn	His	Lys	Pro	Ser
		195					200					205			
Asn	Thr	Lys	Val	Asp	Lys	Lys	Val	Glu	Pro	Lys	Ser	Cys	Asp	Lys	Thr
	210					215					220				
His	Thr	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Leu	Leu	Gly	Gly	Pro	Ser
225					230					235					240

Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg
 245 250 255
 Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro
 260 265 270
 Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala
 275 280 285
 Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val
 290 295 300
 Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr
 305 310 315 320
 Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr
 325 330 335
 Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu
 340 345 350
 Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys
 355 360 365
 Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser
 370 375 380
 Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp
 385 390 395 400
 Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser
 405 410 415
 Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala
 420 425 430
 Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
 435 440 445

<210> 112

<211> 571

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 112

Gln Val Gln Leu Lys Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Thr
 1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
 20 25 30

Trp	Leu	Gly	Trp	Val	Lys	Gln	Arg	Pro	Gly	His	Gly	Leu	Glu	Trp	Ile
		35					40					45			
Gly	Asp	Ile	Tyr	Pro	Gly	Gly	Gly	Tyr	Thr	Asn	Tyr	Asn	Glu	Lys	Phe
	50					55					60				
Lys	Gly	Lys	Ala	Thr	Leu	Thr	Ala	Asp	Thr	Ser	Ser	Ser	Thr	Ala	Tyr
	65				70					75					80
Met	Gln	Leu	Ser	Ser	Leu	Thr	Ser	Glu	Asp	Ser	Ala	Val	Tyr	Phe	Cys
				85					90					95	
Ala	Tyr	Tyr	Asp	Ala	Ala	Gly	Pro	Trp	Phe	Ala	Tyr	Trp	Gly	Gln	Gly
			100					105					110		
Thr	Thr	Val	Thr	Val	Ser	Gly	Ser	Ala	Ser	Ala	Pro	Thr	Leu	Phe	Pro
		115					120					125			
Leu	Val	Ser	Cys	Glu	Asn	Ser	Pro	Ser	Asp	Thr	Ser	Ser	Val	Ala	Val
	130					135					140				
Gly	Cys	Leu	Ala	Gln	Asp	Phe	Leu	Pro	Asp	Ser	Ile	Thr	Leu	Ser	Trp
	145				150					155					160
Lys	Tyr	Lys	Asn	Asn	Ser	Asp	Ile	Ser	Ser	Thr	Arg	Gly	Phe	Pro	Ser
				165					170					175	
Val	Leu	Arg	Gly	Gly	Lys	Tyr	Ala	Ala	Thr	Ser	Gln	Val	Leu	Leu	Pro
			180					185					190		
Ser	Lys	Asp	Val	Met	Gln	Gly	Thr	Asp	Glu	His	Val	Val	Cys	Lys	Val
		195					200					205			
Gln	His	Pro	Asn	Gly	Asn	Lys	Glu	Lys	Asn	Val	Pro	Leu	Pro	Val	Ile
	210					215					220				
Ala	Glu	Leu	Pro	Pro	Lys	Val	Ser	Val	Phe	Val	Pro	Pro	Arg	Asp	Gly
	225				230				235						240
Phe	Phe	Gly	Asn	Pro	Arg	Lys	Ser	Lys	Leu	Ile	Cys	Gln	Ala	Thr	Gly
				245					250					255	
Phe	Ser	Pro	Arg	Gln	Ile	Gln	Val	Ser	Trp	Leu	Arg	Glu	Gly	Lys	Gln
			260					265					270		
Val	Gly	Ser	Gly	Val	Thr	Thr	Asp	Gln	Val	Gln	Ala	Glu	Ala	Lys	Glu
		275					280					285			
Ser	Gly	Pro	Thr	Thr	Tyr	Lys	Val	Thr	Ser	Thr	Leu	Thr	Ile	Lys	Glu
	290					295					300				
Ser	Asp	Trp	Leu	Gly	Gln	Ser	Met	Phe	Thr	Cys	Arg	Val	Asp	His	Arg
	305				310					315					320
Gly	Leu	Thr	Phe	Gln	Gln	Asn	Ala	Ser	Ser	Met	Cys	Val	Pro	Asp	Gln
				325					330					335	

Asp Thr Ala Ile Arg Val Phe Ala Ile Pro Pro Ser Phe Ala Ser Ile
 340 345 350
 Phe Leu Thr Lys Ser Thr Lys Leu Thr Cys Leu Val Thr Asp Leu Thr
 355 360 365
 Thr Tyr Asp Ser Val Thr Ile Ser Trp Thr Arg Gln Asn Gly Glu Ala
 370 375 380
 Val Lys Thr His Thr Asn Ile Ser Glu Ser His Pro Asn Ala Thr Phe
 385 390 395 400
 Ser Ala Val Gly Glu Ala Ser Ile Cys Glu Asp Asp Trp Asn Ser Gly
 405 410 415
 Glu Arg Phe Thr Cys Thr Val Thr His Thr Asp Leu Pro Ser Pro Leu
 420 425 430
 Lys Gln Thr Ile Ser Arg Pro Lys Gly Val Ala Leu His Arg Pro Asp
 435 440 445
 Val Tyr Leu Leu Pro Pro Ala Arg Glu Gln Leu Asn Leu Arg Glu Ser
 450 455 460
 Ala Thr Ile Thr Cys Leu Val Thr Gly Phe Ser Pro Ala Asp Val Phe
 465 470 475 480
 Val Gln Trp Met Gln Arg Gly Gln Pro Leu Ser Pro Glu Lys Tyr Val
 485 490 495
 Thr Ser Ala Pro Met Pro Glu Pro Gln Ala Pro Gly Arg Tyr Phe Ala
 500 505 510
 His Ser Ile Leu Thr Val Ser Glu Glu Glu Trp Asn Thr Gly Glu Thr
 515 520 525
 Tyr Thr Cys Val Val Ala His Glu Ala Leu Pro Asn Arg Val Thr Glu
 530 535 540
 Arg Thr Val Asp Lys Ser Thr Gly Lys Pro Thr Leu Tyr Asn Val Ser
 545 550 555 560
 Leu Val Met Ser Asp Thr Ala Gly Thr Cys Tyr
 565 570

<210> 113

<211> 219

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 113

Asp Ile Gln Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
 1 5 10 15

Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
 20 25 30
 Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
 35 40 45
 Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
 50 55 60
 Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65 70 75 80
 Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly
 85 90 95
 Ser His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
 100 105 110
 Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
 115 120 125
 Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe
 130 135 140
 Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln
 145 150 155 160
 Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
 165 170 175
 Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
 180 185 190
 Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
 195 200 205
 Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 210 215

<210> 114

<211> 63

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<220>

<221> CDS

<222> (1)..(63)

<400> 114

acg gtc acc gtc tcc tca gcc tcg agt ggc tcg ggc tca tct gca gat 48
 Thr Val Thr Val Ser Ser Ala Ser Ser Gly Ser Gly Ser Ser Ala Asp
 1 5 10 15

atc cag atg aca cag
 Ile Gln Met Thr Gln
 20

63

<210> 115
 <211> 21
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 115
 Thr Val Thr Val Ser Ser Ala Ser Ser Gly Ser Gly Ser Ser Ala Asp
 1 5 10 15
 Ile Gln Met Thr Gln
 20

<210> 116
 <211> 60
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<220>
 <221> CDS
 <222> (1)..(60)

<400> 116
 acg gtc acc gtc tcc tca gcc tcg agt ggc ggc tca tct gca gat atc 48
 Thr Val Thr Val Ser Ser Ala Ser Ser Gly Gly Ser Ser Ala Asp Ile
 1 5 10 15

cag atg aca cag 60
 Gln Met Thr Gln
 20

<210> 117
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 117
 Thr Val Thr Val Ser Ser Ala Ser Ser Gly Gly Ser Ser Ala Asp Ile
 1 5 10 15

Gln Met Thr Gln
20

<210> 118
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<220>
<221> CDS
<222> (1)..(57)

<400> 118
acg gtc acc gtc tcc tca gcc tcg agt ggc tca tct gca gat atc cag 48
Thr Val Thr Val Ser Ser Ala Ser Ser Gly Ser Ser Ala Asp Ile Gln
1 5 10 15

atg aca cag 57
Met Thr Gln

<210> 119
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 119
Thr Val Thr Val Ser Ser Ala Ser Ser Gly Ser Ser Ala Asp Ile Gln
1 5 10 15

Met Thr Gln

<210> 120
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<220>
<221> CDS
<222> (1)..(54)

<400> 120
 acg gtc acc gtc tcc tca gcc tcg agt tca tct gca gat atc cag atg 48
 Thr Val Thr Val Ser Ser Ala Ser Ser Ser Ser Ala Asp Ile Gln Met
 1 5 10 15

 aca cag 54
 Thr Gln

<210> 121
 <211> 18
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 121
 Thr Val Thr Val Ser Ser Ala Ser Ser Ser Ser Ala Asp Ile Gln Met
 1 5 10 15

 Thr Gln

<210> 122
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<220>
 <221> CDS
 <222> (1)..(51)

<400> 122
 acg gtc acc gtc tcc tca gcc tcg agt tct gca gat atc cag atg aca 48
 Thr Val Thr Val Ser Ser Ala Ser Ser Ser Ser Ala Asp Ile Gln Met Thr
 1 5 10 15

 cag 51
 Gln

<210> 123
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 123

Thr Val Thr Val Ser Ser Ala Ser Ser Ser Ala Asp Ile Gln Met Thr
 1 5 10 15

Gln

<210> 124

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<220>

<221> CDS

<222> (1)..(48)

<400> 124

acg gtc acc gtc tcc tca gcc tcg agt gca gat atc cag atg aca cag 48
 Thr Val Thr Val Ser Ser Ala Ser Ser Ala Asp Ile Gln Met Thr Gln
 1 5 10 15

<210> 125

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 peptide

<400> 125

Thr Val Thr Val Ser Ser Ala Ser Ser Ala Asp Ile Gln Met Thr Gln
 1 5 10 15

<210> 126

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<220>

<221> CDS

<222> (1)..(45)

<400> 126
 acg gtc acc gtc tcc tca gcc tcg gcc gat atc cag atg aca cag 45
 Thr Val Thr Val Ser Ser Ala Ser Ala Asp Ile Gln Met Thr Gln
 1 5 10 15

<210> 127
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 127
 Thr Val Thr Val Ser Ser Ala Ser Ala Asp Ile Gln Met Thr Gln
 1 5 10 15

<210> 128
 <211> 42
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<220>
 <221> CDS
 <222> (1)..(42)

<400> 128
 acg gtc acc gtc tcc tca gcc gcc gat atc cag atg aca cag 42
 Thr Val Thr Val Ser Ser Ala Ala Asp Ile Gln Met Thr Gln
 1 5 10

<210> 129
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 129
 Thr Val Thr Val Ser Ser Ala Ala Asp Ile Gln Met Thr Gln
 1 5 10

<210> 130
 <211> 39
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<220>
 <221> CDS
 <222> (1)..(39)

<400> 130
 acg gtc acc gtc tcc tca gcc gat atc cag atg aca cag
 Thr Val Thr Val Ser Ser Ala Asp Ile Gln Met Thr Gln
 1 5 10

39

<210> 131
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 131
 Thr Val Thr Val Ser Ser Ala Asp Ile Gln Met Thr Gln
 1 5 10

<210> 132
 <211> 36
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<220>
 <221> CDS
 <222> (1)..(36)

<400> 132
 acg gtc acc gtc tcc tca gat atc cag atg aca cag
 Thr Val Thr Val Ser Ser Asp Ile Gln Met Thr Gln
 1 5 10

36

<210> 133
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 133
 Thr Val Thr Val Ser Ser Asp Ile Gln Met Thr Gln
 1 5 10

<210> 134
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<220>
 <221> CDS
 <222> (1)..(33)

<400> 134
 acg gtc acc gtc tcc gat atc cag atg aca cag
 Thr Val Thr Val Ser Asp Ile Gln Met Thr Gln
 1 5 10

33

<210> 135
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 135
 Thr Val Thr Val Ser Asp Ile Gln Met Thr Gln
 1 5 10

<210> 136
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 6xHis tag

<400> 136
 His His His His His His
 1 5

<210> 137
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Syntetic
 oligonucleotide

<400> 137
 aattggatcc gagcccagac actggac 27

<210> 138
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Syntetic
 oligonucleotide

<400> 138
 accgtctaga cgactcatt taccgg 27

<210> 139
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Syntetic
 oligonucleotide

<400> 139
 acctggatcc gctaggaaga aactcaaaac 30

<210> 140
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Syntetic
 oligonucleotide

<400> 140
 accgtctaga ccctctaaca ctctcccctg 30

<210> 141
 <211> 28
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Syntetic
 oligonucleotide

<400> 141
 atcgggatcc gatagccatg acagtctg 28

<210> 142
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Syntetic
 oligonucleotide

<400> 142
 agcgtctaga cagggtcagt agcagg

26

<210> 143
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 peptide

<220>

<221> MOD_RES
 <222> (1)
 <223> Gln or Glu

<220>

<221> MOD_RES
 <222> (3)
 <223> Gln, Lys or Thr

<220>

<221> MOD_RES
 <222> (5)
 <223> Lys or Val

<220>

<221> MOD_RES
 <222> (6)
 <223> Glu or Gln

<220>

<221> MOD_RES
 <222> (11)
 <223> Leu or Val

<220>

<221> MOD_RES
 <222> (12)
 <223> Val or Lys

<220>

<221> MOD_RES
 <222> (13)
 <223> Arg or Lys

<220>
 <221> MOD_RES
 <222> (16)
 <223> Thr or Ala

<220>
 <221> MOD_RES
 <222> (20)
 <223> Ile or Val

<220>
 <221> MOD_RES
 <222> (21)
 <223> Ser or Pro

<220>
 <221> MOD_RES
 <222> (24)
 <223> Ala, Val, Ser or Thr

<220>
 <221> MOD_RES
 <222> (27)
 <223> Tyr, Phe, Ser or Asp

<220>
 <221> MOD_RES
 <222> (29)
 <223> Phe, Leu or Ile

<400> 143
 Xaa Val Xaa Leu Xaa Xaa Ser Gly Ala Glu Xaa Xaa Xaa Pro Gly Xaa
 1 5 10 15
 Ser Val Lys Xaa Xaa Cys Lys Xaa Ser Gly Xaa Thr Xaa Thr
 20 25 30

<210> 144
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<220>
 <221> MOD_RES
 <222> (3)
 <223> Lys or Arg

<220>
 <221> MOD_RES
 <222> (5)
 <223> Arg or Ala

<220>
 <221> MOD_RES
 <222> (8)
 <223> His or Gln

<220>
 <221> MOD_RES
 <222> (12)
 <223> Trp or Arg

<220>
 <221> MOD_RES
 <222> (13)
 <223> Ile or Met

<400> 144
 Trp Val Xaa Gln Xaa Pro Gly Xaa Gly Leu Glu Xaa Xaa Gly
 1 5 10

<210> 145
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<220>
 <221> MOD_RES
 <222> (1)
 <223> Lys or Arg

<220>
 <221> MOD_RES
 <222> (2)
 <223> Ala or Val

<220>
 <221> MOD_RES
 <222> (4)
 <223> Leu or Met

<220>
 <221> MOD_RES
 <222> (6)
 <223> Ala, Leu or Thr

<220>
 <221> MOD_RES
 <222> (10)
 <223> Ser or Thr

<220>
 <221> MOD_RES
 <222> (16)
 <223> Gln or Glu

<220>
 <221> MOD_RES
 <222> (19)
 <223> Ser or Arg

<220>
 <221> MOD_RES
 <222> (21)
 <223> Thr or Arg

<220>
 <221> MOD_RES
 <222> (25)
 <223> Ser or Thr

<220>
 <221> MOD_RES
 <222> (29)
 <223> Phe or Tyr

<220>
 <221> MOD_RES
 <222> (32)
 <223> Tyr, Lys or Arg

<400> 145
 Xaa Xaa Thr Xaa Thr Xaa Asp Thr Ser Xaa Ser Thr Ala Tyr Met Xaa
 1 5 10 15
 Leu Ser Xaa Leu Xaa Ser Glu Asp Xaa Ala Val Tyr Xaa Cys Ala Xaa
 20 25 30

<210> 146
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<220>
 <221> MOD_RES
 <222> (6)
 <223> Thr, Ser or Leu

<220>
 <221> MOD_RES
 <222> (7)
 <223> Val or Leu

<220>
 <221> MOD_RES
 <222> (11)
 <223> Ser or Ala

<400> 146

Trp Gly Gln Gly Thr Xaa Xaa Thr Val Ser Xaa
 1 5 10

<210> 147

<211> 23

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<220>

<221> MOD_RES

<222> (2)

<223> Ile, Val or Leu

<220>

<221> MOD_RES

<222> (3)

<223> Gln or Leu

<220>

<221> MOD_RES

<222> (7)

<223> Thr or Ser

<220>

<221> MOD_RES

<222> (14)

<223> Ser or Thr

<220>

<221> MOD_RES

<222> (15)

<223> Leu or Phe

<220>

<221> MOD_RES

<222> (17)

<223> Asp or Glu

<220>

<221> MOD_RES

<222> (18)

<223> Gln or Pro

<400> 147

Asp Xaa Xaa Met Thr Gln Xaa Pro Leu Ser Leu Pro Val Xaa Xaa Gly
 1 5 10 15

Xaa Xaa Ala Ser Ile Ser Cys
 20

<210> 148
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<220>
 <221> MOD_RES
 <222> (11)
 <223> Lys or Gln

<220>
 <221> MOD_RES
 <222> (14)
 <223> Ile or Val

<400> 148
 Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Xaa Leu Leu Xaa Tyr
 1 5 10 15

<210> 149
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<220>
 <221> MOD_RES
 <222> (27)
 <223> Leu or Val

<400> 149
 Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
 1 5 10 15

Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Xaa Gly Val Tyr Tyr Cys
 20 25 30

<210> 150
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<220>
 <221> MOD_RES
 <222> (3)
 <223> Gly or Gln

<220>
 <221> MOD_RES
 <222> (9)
 <223> Ile or Leu

<400> 150
 Phe Gly Xaa Gly Thr Lys Leu Glu Xaa Lys Arg Ala
 1 5 10

<210> 151
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<220>
 <221> MOD_RES
 <222> (1)
 <223> Gln or Glu

<220>
 <221> MOD_RES
 <222> (3)
 <223> Gln, Lys or Thr

<220>
 <221> MOD_RES
 <222> (5)
 <223> Lys or Val

<220>
 <221> MOD_RES
 <222> (6)
 <223> Glu or Gln

<220>
 <221> MOD_RES
 <222> (11)
 <223> Leu or Val

<220>
 <221> MOD_RES
 <222> (12)
 <223> Val or Lys

<220>
 <221> MOD_RES
 <222> (13)
 <223> Arg or Lys

<220>
<221> MOD_RES
<222> (16)
<223> Thr or Ala

<220>
<221> MOD_RES
<222> (20)
<223> Ile or Val

<220>
<221> MOD_RES
<222> (21)
<223> Ser or Pro

<220>
<221> MOD_RES
<222> (24)
<223> Ala, Val, Ser or Thr

<220>
<221> MOD_RES
<222> (27)
<223> Tyr, Phe, Ser or Asp

<220>
<221> MOD_RES
<222> (29)
<223> Phe, Leu, or Ile

<220>
<221> MOD_RES
<222> (31)
<223> Asn or any amino acid

<220>
<221> MOD_RES
<222> (32)
<223> Tyr or any amino acid

<220>
<221> MOD_RES
<222> (33)
<223> Trp or any amino acid

<220>
<221> MOD_RES
<222> (34)
<223> Leu or any amino acid

<220>
<221> MOD_RES
<222> (35)
<223> Gly or any amino acid

<220>
<221> MOD_RES
<222> (38)
<223> Lys or Arg

<220>
<221> MOD_RES
<222> (40)
<223> Arg or Ala

<220>
<221> MOD_RES
<222> (43)
<223> His or Gln

<220>
<221> MOD_RES
<222> (47)
<223> Trp or Arg

<220>
<221> MOD_RES
<222> (48)
<223> Ile or Met

<220>
<221> MOD_RES
<222> (50)
<223> Asp or any amino acid

<220>
<221> MOD_RES
<222> (51)
<223> Ile or any amino acid

<220>
<221> MOD_RES
<222> (52)
<223> Tyr or any amino acid

<220>
<221> MOD_RES
<222> (53)
<223> Pro or any amino acid

<220>
<221> MOD_RES
<222> (54)..(55)
<223> Gly or any amino acid

<220>
<221> MOD_RES
<222> (56)
<223> Gly, Ser or any amino acid

<220>
<221> MOD_RES
<222> (57)
<223> Tyr or any amino acid

<220>
<221> MOD_RES
<222> (58)
<223> Thr or any amino acid

<220>
<221> MOD_RES
<222> (59)
<223> Asn or any amino acid

<220>
<221> MOD_RES
<222> (60)
<223> Tyr or any amino acid

<220>
<221> MOD_RES
<222> (61)
<223> Asn or any amino acid

<220>
<221> MOD_RES
<222> (62)
<223> Glu or any amino acid

<220>
<221> MOD_RES
<222> (63)
<223> Lys or any amino acid

<220>
<221> MOD_RES
<222> (64)
<223> Phe or any amino acid

<220>
<221> MOD_RES
<222> (65)
<223> Lys or any amino acid

<220>
<221> MOD_RES
<222> (66)
<223> Gly or any amino acid

<220>
<221> MOD_RES
<222> (67)
<223> Lys or Arg

<220>
<221> MOD_RES
<222> (68)
<223> Ala or Val

<220>
<221> MOD_RES
<222> (70)
<223> Leu or Met

<220>
<221> MOD_RES
<222> (72)
<223> Ala, Leu or Thr

<220>
<221> MOD_RES
<222> (76)
<223> Ser or Thr

<220>
<221> MOD_RES
<222> (82)
<223> Gln or Glu

<220>
<221> MOD_RES
<222> (85)
<223> Ser or Arg

<220>
<221> MOD_RES
<222> (87)
<223> Thr or Arg

<220>
<221> MOD_RES
<222> (91)
<223> Ser or Thr

<220>
<221> MOD_RES
<222> (95)
<223> Phe or Tyr

<220>
<221> MOD_RES
<222> (98)
<223> Tyr, Lys or Arg

<220>
<221> MOD_RES
<222> (99)
<223> Tyr or any amino acid

<220>
 <221> MOD_RES
 <222> (100)
 <223> Asp or any amino acid

<220>
 <221> MOD_RES
 <222> (101).. (102)
 <223> Ala or any amino acid

<220>
 <221> MOD_RES
 <222> (103)
 <223> Gly, Asn or any amino acid

<220>
 <221> MOD_RES
 <222> (104)
 <223> Pro, His or any amino acid

<220>
 <221> MOD_RES
 <222> (105)
 <223> Trp, Gly, Tyr or any amino acid

<220>
 <221> MOD_RES
 <222> (106)
 <223> Phe or any amino acid

<220>
 <221> MOD_RES
 <222> (107)
 <223> Ala, Asp or any amino acid

<220>
 <221> MOD_RES
 <222> (108)
 <223> Tyr or any amino acid

<220>
 <221> MOD_RES
 <222> (114)
 <223> Thr, Ser or Leu

<220>
 <221> MOD_RES
 <222> (115)
 <223> Val or Leu

<220>
 <221> MOD_RES
 <222> (119)
 <223> Ser or Ala

<400> 151
 Xaa Val Xaa Leu Xaa Xaa Ser Gly Ala Glu Xaa Xaa Xaa Pro Gly Xaa
 1 5 10 15

```

Ser Val Lys Xaa Xaa Cys Lys Xaa Ser Gly Xaa Thr Xaa Thr Xaa Xaa
      20                      25                      30
Xaa Xaa Xaa Trp Val Xaa Gln Xaa Pro Gly Xaa Gly Leu Glu Xaa Xaa
      35                      40                      45
Gly Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      50                      55                      60
Xaa Xaa Xaa Xaa Thr Xaa Thr Xaa Asp Thr Ser Xaa Ser Thr Ala Tyr
      65                      70                      75                      80
Met Xaa Leu Ser Xaa Leu Xaa Ser Glu Asp Xaa Ala Val Tyr Xaa Cys
      85                      90                      95
Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Trp Gly Gln Gly
      100                      105                      110
Thr Xaa Xaa Thr Val Ser Xaa
      115

```

<210> 152

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<220>

<221> MOD_RES

<222> (2)

<223> Ile, Val, or Leu

<220>

<221> MOD_RES

<222> (3)

<223> Gln or Leu

<220>

<221> MOD_RES

<222> (7)

<223> Thr or Ser

<220>

<221> MOD_RES

<222> (14)

<223> Ser or Thr

<220>

<221> MOD_RES

<222> (15)

<223> Leu or Pro

<220>
<221> MOD_RES
<222> (17)
<223> Asp or Glu

<220>
<221> MOD_RES
<222> (18)
<223> Gln or Pro

<220>
<221> MOD_RES
<222> (24)
<223> Arg, Lys or any amino acid

<220>
<221> MOD_RES
<222> (25)..(26)
<223> Ser or any amino acid

<220>
<221> MOD_RES
<222> (27)
<223> Gln or any amino acid

<220>
<221> MOD_RES
<222> (28)
<223> Ser or any amino acid

<220>
<221> MOD_RES
<222> (29)
<223> Ile, Leu or any amino acid

<220>
<221> MOD_RES
<222> (30)
<223> Val, Leu or any amino acid

<220>
<221> MOD_RES
<222> (31)
<223> His or any amino acid

<220>
<221> MOD_RES
<222> (32)
<223> Ser or any amino acid

<220>
<221> MOD_RES
<222> (33)
<223> Asn, Asp or any amino acid

<220>
<221> MOD_RES
<222> (34)
<223> Gly or any amino acid

<220>
<221> MOD_RES
<222> (35)
<223> Asn, Lys or any amino acid

<220>
<221> MOD_RES
<222> (36)
<223> Thr or any amino acid

<220>
<221> MOD_RES
<222> (37)
<223> Tyr or any amino acid

<220>
<221> MOD_RES
<222> (38)
<223> Leu or any amino acid

<220>
<221> MOD_RES
<222> (39)
<223> Glu, His, Tyr or any amino acid

<220>
<221> MOD_RES
<222> (50)
<223> Lys or Gln

<220>
<221> MOD_RES
<222> (53)
<223> Ile or Val

<220>
<221> MOD_RES
<222> (55)
<223> Lys, Glu or any amino acid

<220>
<221> MOD_RES
<222> (56)
<223> Val or any amino acid

<220>
<221> MOD_RES
<222> (57)
<223> Ser or any amino acid

<220>
<221> MOD_RES
<222> (58)
<223> Asn, Ser or any amino acid

<220>
<221> MOD_RES
<222> (59)
<223> Arg or any amino acid

<220>
<221> MOD_RES
<222> (60)
<223> Phe or any amino acid

<220>
<221> MOD_RES
<222> (61)
<223> Ser or any amino acid

<220>
<221> MOD_RES
<222> (88)
<223> Leu or Val

<220>
<221> MOD_RES
<222> (94)
<223> Phe, Ser or any amino acid

<220>
<221> MOD_RES
<222> (95)
<223> Gln or any amino acid

<220>
<221> MOD_RES
<222> (96)
<223> Gly, Ser or any amino acid

<220>
<221> MOD_RES
<222> (97)
<223> Ser, Thr or any amino acid

<220>
<221> MOD_RES
<222> (98)
<223> His or any amino acid

<220>
<221> MOD_RES
<222> (99)
<223> Val or any amino acid

```

<400> 152
Asp Xaa Xaa Met Thr Gln Xaa Pro Leu Ser Leu Pro Val Xaa Xaa Gly
  1          5          10          15
Xaa Xaa Ala Ser Ile Ser Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
          20          25          30
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Trp Tyr Leu Gln Lys Pro Gly Gln Ser
          35          40          45
Pro Xaa Leu Leu Xaa Tyr Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Val Pro
          50          55          60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
  65          70          75          80
Ser Arg Val Glu Ala Glu Asp Xaa Gly Val Tyr Tyr Cys Xaa Xaa Xaa
          85          90          95
Xaa Xaa Xaa Xaa Xaa Xaa Phe Gly Xaa Gly Thr Lys Leu Glu Xaa Lys
          100          105          110
Arg Ala

```